

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A system for transmitting energy to and communicating with a complementary implantable medical device, the system comprising a transmission module further comprising at least one energizable coil and adapted to automatically establish and control an inductive transfer link with the complementary implantable medical device comprising at least one energizable coil wherein the transmission module automatically initiates, without requiring user intervention, patient contact, or any alignment between the energizable coil and the implantable medical device, an inductive transfer of energy to the medical device to power the medical device, the automatic initiation based at least in part on the medical device coming within range of the transmission module, wherein the transmission module establishes a data transfer link with the medical device and wherein the inductive link powers the data link and wherein the inductive link powers at least one of: (1) intracorporeal ultrasound transmitters and receivers for data communication between multiple implantable devices, or (2) powers a RF transmitter and receiver.

2. (Previously Presented) The system of claim 1, wherein the transmission module automatically establishes and controls the inductive link when the complementary implantable medical device is adjacent the transmission module.

3. (Previously Presented) The system of claim 1, wherein the transmission module automatically establishes and controls the inductive link when the complementary implantable medical device is adjacent the transmission module at night.

4. (Previously Presented) The system of claim 1, wherein the at least one coil of the transmission module is adjacent a patient's bed such that the transmission module automatically

establishes and controls the inductive link with the implantable medical device when the patient is in the patient's bed.

5. (Cancelled)

6. (Previously Presented) The transmission module of claim 4, wherein the transmission module automatically establishes and controls the inductive link when the complementary implantable medical device is adjacent the bed at night and the patient is in the bed.

7. (Previously Presented) The transmission module of claim 1, wherein the at least one coil of the transmission module is configured to communicate with the at least one coil of the complementary implantable medical device at a location that is adjacent a patient's mattress.

8. (Previously Presented) The system of claim 7, wherein the transmission module automatically establishes and controls the inductive link when the complementary implantable medical device is adjacent the mattress.

9. (Previously Presented) The system of claim 7, wherein the transmission module automatically establishes and controls the inductive link when the patient with a complementary implantable medical device is adjacent the mattress at night.

10. (Previously Presented) The system of claim 1, wherein the device includes a cardiac rhythm management device.

11-13. (Cancelled)

14. (Previously Presented) The system of claim 1, wherein the device comprises sensors that include at least two of EEG, EMG, EOG, MSNA, thoracic pressure, and hemodynamic pressure sensors.

15. (Previously Presented) The system of claim 14, wherein the sensors include sensors adapted to replicate the sensing of a sleep clinic study.

16. (Cancelled)

17. (Previously Presented) The system of claim 1, wherein the link includes a loosely coupled inductive link.

18. (Previously Presented) The system of claim 17, wherein the link is established when the transmission module is about 10 centimeters from the medical device.

19. (Previously Presented) The system of claim 17, wherein the link is established when the transmission module is less than 10 centimeters from the medical device.

20. (Previously Presented) The system of claim 19, wherein the link is established when the transmission module is about 4 - 8 centimeters from the medical device.

21. (Previously Presented) The system of claim 17, wherein the link is established when the transmission module is more than 10 centimeters from the medical device.

22. (Cancelled)

23. (Previously Presented) The system of claim 1, wherein the transmission module transfers energy to the medical device to power the device.

24-25. (Cancelled)

26. (Currently Amended) The system of claim [[25]] 1, wherein the transmission module transfers energy to the implantable medical device to recharge a battery of the implantable medical device.

27. (Cancelled)

28. (Previously Presented) The system of claim 27, wherein the link is a bi-directional data transfer link that is adapted to upload and download data.

29. (Cancelled)

30. (Original) The system of claim 1, wherein the transmission module establishes a data transfer link with a plurality of medical devices.

31-33. (Cancelled)

34. (Previously Presented) The system of claim 1, wherein the transmission module establishes a data transfer link with a centralized patient management system.

35. (Previously Presented) The system of claim 27, wherein the inductive link modulates the data link.

36. (Cancelled)

37. (Currently Amended) The system of claim [[36]] 1, wherein the inductive link powers intracorporeal ultrasound transmitters and receivers for data communication between multiple implantable devices.

38. (Currently Amended) The system of claim [[36]] 1, wherein the inductive link powers a RF transmitter and receiver.

39. (Previously Presented) The system of claim 38, wherein the RF transmitter and receiver comprises a Bluetooth® RF transmitter and receiver.

40. (Previously Presented) The system of claim 38, wherein the transmission module comprises a RF transmitter and receiver.

41. (Previously Presented) The system of claim 38, wherein the implantable medical device comprises a RF transmitter and receiver.

42. (Previously Presented) The system of claim 38, wherein the transmission module and the implantable medical device comprise an RF transmitter and receiver.

43. (Cancelled)

44. (Previously Presented) A system for transmitting energy to and communicating with an implantable medical device, the system comprising a transmission module adapted to automatically establish and control an inductive transfer link with a complementary implantable medical device, said module comprising at least one energizable coil, and said medical device comprising at least one energizable coil, an energy storage device and memory to electronically store data, and wherein the transmission module is further adapted with memory to electronically store data.

45. (Original) The system of claim 44, wherein the transmission module transfers power to the medical device and recharges the energy storage device.

46. (Original) The system of claim 44, wherein the transmission module establishes a data link with the medical device.

47. (Original) The system of claim 44, wherein the transmission module establishes a data link with a plurality of medical devices.

48. (Previously Presented) The system of claim 44, wherein the transmission module establishes a data link with a centralized patient management system.

49. (Original) The system of claim 44, wherein the transmission module establishes a bi-directional data link with the medical device.

50. (Cancelled)

51. (Previously Presented) The system of claim 44, wherein the transmission module is further adapted to analyze data comprising biometric parameters.

52. (Previously Presented) A method of using the system for transmitting energy to and communicating with an implantable medical device, the system comprising a transmission module adapted to automatically establish and control an inductive transfer link with a complementary implantable medical device, said module comprising at least one energizable coil, and said medical device comprising at least one energizable coil, an energy storage device and memory to electronically store data, wherein the method comprises the steps of

- a. bringing the implantable medical device within operational proximity to the transmission module;
- b. automatically establishing an inductive transfer link between the implantable medical device and the transmission module;
- c. regulating the inductive link;
- d. transferring power to the implantable medical device;

- e. transferring data to and from the implantable medical device; and
- f. powering communication between the implantable medical device and a centralized patient management system.

53. (Original) The method of claim 52, wherein the method further comprises the step of recharging the energy storage device of the implantable medical device.

54. (Original) The method of claim 52, wherein the method further comprises the step of powering data transfer between a plurality of implantable medical devices.

55. (Original) The method of claim 52, wherein the method further comprises the step of analyzing data comprising biometric parameters.

56. (Cancelled)

57. (Currently Amended) A system for transmitting energy to and communicating with an implantable medical device, the system comprising a transmission module that establishes a data transfer link with the implantable medical device, the system further comprising at least one energizable coil and adapted to automatically establish and control an inductive transfer link with the implantable medical device comprising at least one energizable coil, wherein the transmission module automatically initiates, without requiring user intervention, an inductive transfer of energy to the medical device to power the implantable medical device, the automatic initiation based at least in part on the medical device coming within range of the transmission module, wherein the inductive link powers at least one of: (1) intracorporeal ultrasound transmitters and receivers for data communication between multiple implantable devices, or (2) an RF transmitter and receiver.

58. (Previously Presented) The system of claim 57, wherein the link is a bi-directional data transfer link that is adapted to upload and download data.

59. (Previously Presented) The system of claim 57, wherein the transmission module establishes a data transfer link with a plurality of medical devices.
60. (Previously Presented) The system of claim 57, wherein the transmission module establishes a data transfer link with a centralized external patient management system.
61. (Previously Presented) The system of claim 57, wherein the inductive link modulates the data link.
62. (Previously Presented) The system of claim 57, wherein the inductive link powers the data link.
63. (Previously Presented) The system of claim 57, wherein the inductive link powers intracorporeal ultrasound transmitters and receivers for data communication between multiple implantable devices.
64. (Previously Presented) The system of claim 57, wherein the inductive link powers a RF transmitter and receiver.
65. (Previously Presented) The system of claim 57, wherein the RF transmitter and receiver comprises a Bluetooth® RF transmitter and receiver.
66. (Previously Presented) The system of claim 57, wherein the transmission module comprises a RF transmitter and receiver.
67. (Previously Presented) The system of claim 57, wherein the implantable medical device comprises a RF transmitter and receiver.

68. (Previously Presented) The system of claim 57, wherein the transmission module and the implantable medical device comprise an RF transmitter and receiver.